

GUJARAT TECHNOLOGICAL UNIVERSITY, AHMEDABAD, GUJARAT
COURSE CURRICULUM

Course Title: Fundamental Computer Application
(Code: 3310703)

Diploma Programmes in which this course is offered	Semester in which offered
Computer Engineering, Information Technology,	First Semester

1. RATIONALE

This objective of this subject is to make the students understand the functioning MS-Office. It will also helps the student to have hands on experience on various application software's used for office automation like MS-Word, MS-Excel and MS-PowerPoint, day-to-day problem solving, in particular for creating business documents, data analysis and graphical representations.

2. LIST OF COMPETENCIES

The course content should be taught and implemented with the aim to develop the following competencies.

- i. Use MS Office software for word-processing, data analysis and preparing presentation.
- ii. Develop static web pages using HTML.

3. TEACHING AND EXAMINATION SCHEME

Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				
L	T	P		Theory Marks		Practical Marks		Total Marks
L	T	P	C	ESE	PA	ESE	PA	
0	0	4	4	0	0	40	60	

Legends: L-Lecture; T – Tutorial/Teacher Guided Theory Practice; P - Practical; C – Credit;
ESE – End Semester Examination; PA - Progressive Assessment.

4. DETAILED COURSE CONTENTS

Unit	Major Learning Outcomes	Topics
Unit – 1 Basics of Computer System	1.1 Describe computer hardware and software 1.2 Identify I/O devices 1.3 Describe functioning of CU ALU and memory unit 1.4 Differentiate various types of printers 1.5 Explain use of OS 1.6 Demonstrate various file handling operations	Basics of Computer System <ul style="list-style-type: none"> • Concept of Hardware and Software • Computer block diagram • Input Output unit • CPU, Control Unit, Arithmetic logic Unit (ALU), Memory Unit • Monitor, Printers: Dot matrix, Laser, Inkjet, Plotters, Scanner • System software and Application Software • Operating system concepts, purpose and functions • Operations of Windows OS. • Creating and naming of file and folders • Copying file, renaming and deleting of files and folders, • Searching files and folders, installation application, creating shortcut of application on the desktop • Overview of control Panel, Taskbar.
Unit– 2 Using MS - Word 2007	2.1 Use basics text formatting features 2.2 Manipulate text 2.3 Use page Setup features 2.4 Use spell and grammar utility 2.5 Work with graphics/ clipart 2.6 Create and manipulate table 2.7 Use auto shapes and its formatting with text	Using MS - Word 2007 <ul style="list-style-type: none"> • Overview of Word processor • Basics of Font type, size, colour, • Effects like Bold, italic , underline, Subscript and superscript, • Case changing options, • Inserting, deleting, undo and redo, Copy and Moving (cutting) text within a document, • Formatting Paragraphs and Lists • Setting line spacing; single • Page settings and margins including header and footer • Spelling and Grammatical checks • Table and its options, Inserting rows or columns, merging and splitting cells, Arithmetic Calculations in a Table. • Working with pictures, Inserting Pictures from Files, • Using Drawings and WordArt; Lines and Shapes, Modifying Drawn Objects, Formatting Drawn Objects, options for Creating and Modifying a WordArt Object
Unit– 3 Using MS - Excel 2007	3.1 Use basic formatting and data entry features 3.2 Use formula and functions 3.3 Work with graphics 3.4 Create and manipulate charts 3.5 Use header and footer options 3.6 Setup page layout and print worksheet	Using MS - Excel 2007 <ul style="list-style-type: none"> • Introduction to Excel 2007, • Introduction to data, Cell address, Excel Data Types, Concept of hyperlink • Introduction to formatting, number, text and date formatting • Concept of worksheet and workbook • Understanding formulas, Operators in Excel 2007, Operators Precedence, Understanding Functions, Common Excel Functions such as sum, average, min, max, date, transpose, In, And, or, sqrt, power, upper, lower. • Types of graphics : Word art, auto shapes , Images • Introduction to charts, overview of different types of charts available with Excel • Concept of print area, margins, header, footer and other page setup options

Unit	Major Learning Outcomes	Topics
Unit – 4 Using MS - PowerPoint 2007	4.1 Create new presentation and apply basic formatting features 4.2 Use master slide 4.3 Create and manipulate table 4.4 Work with objects and clips 4.5 Work with video 4.6 Work with audio 4.7 Use special effects 4.8 Use navigation and hyper linking	Using MS - PowerPoint 2007 <ul style="list-style-type: none"> • Outline of an effective presentations, • Starting a New Presentation Files, Saving work, • Creating new Slides, Working with textboxes. • Changing a slides Layout, Applying a theme, Changing Colours, fonts and effects, Creating and managing custom Colour & font theme, Changing the background • Managing slides master, Managing theme. • Changing the font, font size, font colour, text fill, • Adjusting character spacing and line spacing Formatting text boxes. • Word arts, styles, • Formatting bulleted lists and numbered list, • Finding and replacing text, Correcting your spelling • Creating a new and editing a table's structure, • Selecting, deleting, moving, copying, resizing and arranging objects, • Working with drawing tools, Applying shape or picture styles, Applying object borders, object fill, object effects. • Working with clip art collection and modifying clip art, • Embed a video, Link to a video, Size a video, Video playback options, • Configuring a sound playback, Assigning sound to an object, Adding a digital music sound track, Transition effects and timings, • Creating hyperlinks, Using action buttons
Unit – 5 Using HTML	5.1 Comprehend the HTML page structure 5.2 Use basic formatting tags in HTML 5.3 Create and format tables 5.4 Insert and format images in HTML page 5.5 Create various types of hyper linking 5.6 Work with video and sound files	Basic structure of HTML <ul style="list-style-type: none"> • Structure of HTML Page • Inserting formatting tags for Text: bold, italic, underline, line break, special character, predefine headings, paragraph, comments. • Font color, size, Alignment • Margin with body tag, background and text color • Ordered and unordered lists • Use of Frames for structured viewing Tables, Images and Links in HTML <ul style="list-style-type: none"> • Tables – basic structure, Using TD, TR, TH tags, use of basic elements in table : border, cellpadding, cellspacing, width, caption, align, bgcolor • Images in web page: inserting and formatting of images using SRC, border, Vspace, Hspace, align, ALT, height, width and background in HTML page • Types of links: Linking two or more web pages, linking within a web page, linking to external page, linking to a specific point in another web page, linking image file, mailto. Working with Multimedia Objects <ul style="list-style-type: none"> • Video and sound file. Add marquees of scrolling text. Inserting and controlling video and audio in HTML page

5. SUGGESTED SPECIFICATION TABLE WITH HOURS & MARKS (THEORY)

Unit No.	Unit Title	Teaching/Practical Hours	Distribution of Practical Marks			
			R Level	U Level	A Level	Total
1.	Basics of Computer System.	08	-	-	-	
2.	Using MS-Word 2007	12	-	-	-	
3.	Using MS - Excel 2007	11	-	-	-	
4.	Using MS - PowerPoint 2007	11	-	-	-	
5.	Using HTML	14	-	-	-	
	Total	56				

Legends: R = Remembrance; U = Understanding; A = Application and above levels (Revised Bloom's taxonomy)

6. SUGGESTED LIST OF EXERCISES/PRACTICAL/EXPERIMENTS

The exercises/practical/experiments should be properly designed and implemented with an attempt to develop different types of skills leading to the achievement of the competency. Following is the list of exercises/practical/experiments for guidance.

S. No.	Unit No.	Practical Exercises/Experiments
1	1	Create and manage files and folder tree
2	1	Use accessories utilities of windows OS
3	2	Entering and editing text in document file.
4	2	Apply formatting features on Text like Bold, Italics, Underline, font type, colour and size.
5	2	Apply features like bullet, numbering
6	2	Create documents, insert images, format tables
7	2	Create and manipulate tables
8	3	Entering and editing data in worksheet
9	3	Apply formula and functions in the sheet
10	4	Use graphics and auto shapes in Excel sheet
11	4	Create and manipulate EXCEL charts
12	4	Create Pay bills, Pay slips, Electricity bills using Excel
13	4	Print sheet using print area
14	5	Basic operations of Power point, Create PPT and inset and delete slides
15	5	Create Project presentations, Lecture presentations.
16	5	Use of Mater Slide in Presentation
17	5	Apply basic formatting features in presentation like font, font size, font colour, text fill, spacing and line spacing Formatting text boxes, word arts, styles bullet and numbering
18	5	Working with drawing tools, Applying shape or picture styles, Applying object borders, object fill, object effects.
19	5	Working with video, Link to video and sound files.
20	5	Creating hyperlinks, Using action buttons

7. SUGGESTED LIST OF PROPOSED STUDENT ACTIVITIES

Following is the list of proposed student activities like: assignments based on MS-Office, teacher guided self learning activities and lab based mini-projects on MS-Word, MS-Excel and MS-PowerPoint. These could be individual or group-based.

- Manage files and folder using Windows.
- Prepare letter document Project report in MS-Word
- Generate student marks and represent data in graphical mode using MS-Excel
- Develop effective presentation of Project report using MS-PowerPoint.

8. SUGGESTED LEARNING RESOURCES

A. List of Books

S.No.	Author	Title of Books	Publication
1.	R. Taxali	Computer Course	Tata McGraw Hills. New Delhi.
2.	Wallace Wang	MS-Office for Dummies	Wiley India, New Delhi
3.	Dr. Shailendra Singh, Pawan Thakur, Anurag Jain	Basic Computer Engineering	Satya Prakashan, New Delhi, India.
4.	Steven Hozner	HTML: Black Book	Dreamtech Press India

B. List of Major Equipment/ Instrument

Computer System with latest configuration along with Windows Operating System

C. List of Software/Learning Websites

1. Windows7 Professional
2. MS-Office 2007
3. HTML Tutorials, <http://www.w3schools.com/html/default.asp>

9. COURSE CURRICULUM DEVELOPMENT COMMITTEE

Faculty Members from Polytechnics

- **Shri Parvez Faruki**, Lecturer in Information Technology, G.P. Ahmedabad.
- **Shri P. V. Garach**, Lecturer in Information Technology, Govt. Girls Polytechnic, Ahmedabad.

Coordinator and Faculty Members from NITTTR Bhopal

- **Dr. Shailendra Singh**, Professor, Dept. of Computer Engg. & Application, NITTTR Bhopal
- **Dr. M. A. Rizvi**, Associate Professor, Dept. of Computer Engg. & Application, NITTTR Bhopal